

REMARKS

This application has been carefully reviewed in light of the Office Action dated October 5, 2006. Claims 1 to 8, 10 and 12 to 18 are in the application, of which Claims 1 and 16 to 18 are independent. Favorable review and early passage to issue are respectfully requested.

In the Office Action, Claims 1 to 16 were rejected under 35 U.S.C. § 101 for allegedly claiming non-statutory subject matter. In particular, the Office Action alleged that independent Claims 1 and 16 do not produce a tangible result. In response, Claims 1 and 16 have been amended to specify, among other things, that in a case where an image file corresponding to an input image is not found in a database, the input image is converted into vector data and the converted vector data is stored in the database. Accordingly, these claims are seen to produce a tangible result. Withdrawal of this rejection is therefore respectfully requested.

Claims 1 to 5, 7, 9 to 13 and 15 to 18 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,911,139 (Jain). Claims 6 and 14 were rejected under 35 U.S.C. § 103(a) over Jain in view of U.S. Patent No. 7,010,144 (Davis), and Claim 8 was rejected under 35 U.S.C. § 103(a) over Jain in view of U.S. Patent No. 6,941,323 (Galperin). Reconsideration and withdrawal of these rejections are respectfully requested.

The present invention generally concerns selectively storing an image file in a database. An image is input, and an image file corresponding to the input image is searched for in a database. If a corresponding image file is not found in the database, the input image is converted into vector data, and the vector data is stored in the database. On the other hand, if a corresponding image file is found, the input image is not stored in the database.

By virtue of this arrangement, an input image which does not already have a corresponding image file is stored in a database as vector data, which can ordinarily be reused and modified more easily than the raster data of an image. In addition, in one representative embodiment, the vector data can be further converted to application data for programs such as Microsoft Word or Microsoft Excel, as described in the specification at pages 15 and 16.

Referring specifically to claim language, independent Claim 1 as amended is directed to an image processing method implemented by a computer for selectively storing an input image in a database. The method includes (a) acquiring first search information associated with the input image on the basis of information input by a user, (b) acquiring feature data contained in the input image as second search information, (c) searching for an image file corresponding to the input image in the database by using the first and second search information, (d) converting the input image into vector data and storing the vector data in the database, in a case where the image file corresponding to the input image is not found in the step (c), and (e) declining to store the input image data into the database, in a case that the image file corresponding to the input image is found in the step (c).

Independent Claims 16, 17 and 18 are directed to a system, a program and a computer-readable medium, respectively, substantially in accordance with the method of Claim 1.

The applied art is not seen to disclose or suggest the features of the present invention, and in particular is not seen to disclose or suggest at least the features of (i) converting an input image into vector data and storing the vector data in a database, in a case where an image file corresponding to the input image is not found in the database, and

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(ii) declining to store input image data into a database, in a case that an image file corresponding to the input image is found in the database.

As understood by Applicant, Jain discloses a system for content-based search and retrieval of visual objects. A visual information retrieval (VIR) engine uses a set of primitives (features) to compare and search visual objects. In particular, an analysis module inputs an image and stores a "feature vector" describing the input visual object, and this feature vector is then compared with feature vectors of other visual objects to provide a measure of the similarity between the objects. See Jain, Column 3, line 61 to Column 4, line 20 and Column 9, lines 40 to 67.

Page 6 of the Office Action asserts that Jain (Column 9, lines 40 to 52) discloses converting an input image into vector data, and storing the input image which has been converted into the vector data in a database. In particular, the Office Action equates Jain's feature vector with the claimed vector data, and thus apparently asserts that creating and storing the feature vector corresponds to the claimed conversion and storage steps.

However, Jain's "feature vector" is simply data describing one or more certain selected characteristics of an image, such as local or global color or texture, rather than a conversion of the actual image data. See Jain, Column 12, lines 1 to 36. The feature vector depends on the features selected by the user, and thus may change according to the user's or designer's selection. See Jain, Column 15, line 50 to Column 16, line 20. In contrast, in the present invention, the input image itself is converted to vector data.

Thus, Jain is not seen to disclose or suggest converting an input image into vector data, much less doing so in the case that an image file corresponding to the input image is not found the database. As such, Jain is also not seen to disclose or suggest the feature of storing such vector data in a database.

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Moreover, Jain's system decides whether or not to store an input image into a database based on whether "Insertion module 112" has been used to input the image to the VIR, rather than based on any outcome of a search for an image file corresponding to an input image. See Jain, Column 9, lines 27 to 31 and 49 to 53.

Therefore, Jain is not seen to disclose or suggest at least the features of (i) converting an input image into vector data and storing the vector data in a database, in a case where an image file corresponding to the input image is not found in the database, and (ii) declining to store input image data into a database, in a case that an image file corresponding to the input image is found in the database.

Davis and Galperin have been reviewed and are not seen to remedy the above-noted deficiencies of Jain.

Accordingly, independent Claims 1, 16, 17 and 18 are seen to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.


The other claims in the application are each dependent from the independent claims discussed above, and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

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Applicant's undersigned attorney may be reached in our Costa Mesa,
California office at (714) 540-8700. All correspondence should continue to be directed to
our below-listed address.

Respectfully submitted,


John D. Magluyan
Attorney for Applicant
Registration No.: 56,867

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3800
Facsimile: (212) 218-2200

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